Agri-Tech Catalyst: innovation funding in developing countries

London, 14th September 2016

Dr Tom Jenkins
Lead Technologist
Agriculture and Food

Innovate UK
UK’s innovation agency for business...

We accelerate economic growth by stimulating and supporting business-led innovation.

A focus on business....

How can we help UK business bring new ideas and technologies more quickly to market?
return to the economy: up to £13.1bn

organisations supported: 7,600

GVA: up to £7.30

created jobs: helped to create 55,000 jobs

>7 jobs: created for every business invested in
5-point plan

1. Working with the research community and across Government to turn scientific excellence into economic impact

2. **Accelerating UK economic growth**, nurturing small, high-growth companies with strong productivity and export success

3. **Building on innovation excellence throughout the UK**, investing locally in areas of strength

4. Developing Catapults within a national innovation network

5. **Evolving our funding models**; helping public funding go further
Sector focus to accelerate growth

Emerging and Enabling Technologies
Identifying and investing in technologies and capabilities that will lead to the new products, processes and services of tomorrow

Health and Life Sciences
Focused on agriculture and food and healthcare, underpinned by bioscience and medical research and enabled by engineering and physical sciences

Infrastructure Systems
Optimising transport and energy systems and integrating them with other systems such as health and digital

Manufacturing and Materials
Advancing manufacturing readiness so R&D and technology developments increase productivity and capture value in the UK
Funding: simpler competitions

- Two broad competitions for funding in each sector group this year; each open to a much wider range of applications than previously
- An ‘open’ funding programme – with two rounds per year - for applications from any technology area or sector
- Competitions and programmes run in partnership with other public sector organisations
Our budget

£561m Core budget for 2016/17

Emerging and Enabling Technologies 15%
Infrastructure Systems 27%
Open Programme 13%
Manufacturing and Materials 24%
Health and Life Sciences 21%

£150 million
£137 million
£86 million
£71 million
£117 million
# New simplified Innovate UK competitions

<table>
<thead>
<tr>
<th></th>
<th>Expected open date</th>
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</thead>
<tbody>
<tr>
<td>Manufacturing and Materials</td>
<td>9 May 2016</td>
</tr>
<tr>
<td>Open</td>
<td>6 Jun 2016</td>
</tr>
<tr>
<td>Infrastructure Systems</td>
<td>4 Jul 2016</td>
</tr>
<tr>
<td>Health and Life Sciences</td>
<td>12 Sep 2016</td>
</tr>
<tr>
<td>Emerging and Enabling Technologies</td>
<td>3 Oct 2016</td>
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</table>

We will also run competitions in partnership with other organisations. For all competitions see the Delivery Plan or [www.innovateuk.gov.uk](http://www.innovateuk.gov.uk)
Agri-Tech Strategy

- Launched 22 July 2013
- Aims to improve the translation of research into practical application for agriculture and related industries in UK and overseas
- £160M government investment over 5yrs:
  - Agri-tech Catalyst (£70m)
  - Centres for Agricultural Innovation (£90m)
£70m investment to support agricultural innovations

- The Catalyst offers funding for collaborative projects, taking innovative ideas from any sector or discipline with the potential to provide an economic boost to the UK Agri-Tech industry, by tackling challenges in agriculture

- £60m has been invested through InnovateUK and BBSRC

- The Department for International Development will contribute £10m to the Catalyst to support the transfer of technology and new products to developing countries.
Round 6 competition detail

• Up to £4 million funding available to support collaboration between UK and developing country partners on agri-tech innovations

• The aim of this competition is to increase the pace and scale of uptake of agricultural innovation by farmers in developing countries and to achieve:
  • a sustained reduction of poverty and hunger for smallholder farmers
  • a sustainable intensification in developing country agriculture
  • improvements in human health and diversity in diets and nutrition
  • a positive impact on rural income and food security
  • opportunities for trade in agricultural products

• All projects must be collaborative and include both a UK and eligible developing country partner.
Scope

The Agri-Tech Catalyst will fund proposals relating to:

• primary crop and livestock production, including aquaculture
• non-food uses of arable crops (including ornamentals)
• food security and nutrition challenges in international development
• challenges in downstream food processing, provided the solution lies in primary production.

The Agri-Tech Catalyst will not fund equine-related proposals, or proposals relating to forestry or wild-capture fisheries

Projects arising from any sector that address relevant challenges will be supported & multi-disciplinary collaborations are encouraged.
Type of Project

- Projects are expected to range in size and market readiness (TRL), depending on the award category.
- Total project costs could be up to:
  - £400,000 for early-stage technical feasibility studies
  - £1.5 million for industrial research awards
  - £800,000 for late-stage awards
- Projects should last between one year and 18 months for early and late-stage and up to 3 years for industrial research projects.
Types of Project

Innovate UK and its co-funders funding

Research Councils

Knowledge

Feasibility

Fundamental Research

Early Stage Feasibility Studies

Industrial Research

Experimental Development

Market Ready Product

Commercialisation

Prod. Prototype

System Qual.

System Dev.

Technology Demo

Technology Development

Investment/Venture Capital

Market readiness
Grant intervention rates for business

For Early Stage technical feasibility studies and industrial research awards, you could get up to:

- 70% of eligible project costs for micro or small business
- 60% for medium-sized business
- 50% for large business

For experimental development projects which are nearer to market, you could get up to:

- 45% of eligible project costs for micro or small business
- 35% for medium-sized business
- 25% for large business
Applicant briefing webinar

- Information about the competition brief, Guidance for Applicants documents and recording of the Applicant Briefing from 1 Aug are available at:
  

- Recording provides detailed information about the competition process and funding rules from our Competitions team
Agri-Tech Catalyst and DFID

Duncan Barker
Livelihoods Adviser, Agriculture Research Team
Department for International Development
DFID is investing in the Catalyst to test whether it can increase the pace and scale of uptake of agricultural innovation by farmers in developing countries to deliver:

- Sustained reduction of poverty & hunger of small-holder farmers;
- Sustainable intensification in developing country agriculture;
- Improvements in human health and diversity in diets and nutrition;
- Positive impact on rural income and food security; or,
- Facilitating trade in agricultural products.
Official Development Assistance and Research

- Official Development Assistance (ODA) is defined as flows to countries and territories on the DAC List of ODA Recipients
- Only research directly and primarily relevant to the problems of developing countries may be counted as ODA
  - This includes research into tropical diseases and crops for developing country conditions.
  - The costs may still be counted as ODA if the research is carried out in a developed country.
Agricultural Research

• 75% of the poorest people are rural; depend on agriculture, livestock, forestry and fisheries for their livelihoods

• Innovation in developing country agriculture, particularly in Africa is low
  – The share of land area planted with modern varieties in Africa is only 28% compared with 65% globally
Agricultural Research Priorities

- Development of new technology
eg work with BBSRC

- Testing interventions and delivery mechanisms
eg Catalyst

- A deeper understanding of the complex political, social and economic context that influences success of investments in agriculture development
Agricultural Research Programme

• 30% of DFID research spend
• £81m in 2015/16
• Since 2010, increased emphasis on agricultural innovation
• Increase in number of programmes which leverage private sector inputs
  – AgResults and Agri-Tech Catalyst
Scope in International Development

• Integrating small-holders into supply chains
  – Meeting quality standards, improving productivity
  – New supply chains
• Increasing value of production to small-holders
• Improving access to appropriate innovation in developing countries
• Innovation that increases rural income through improved processing/storage
• Control of crop pests/weeds/diseases
Eligible Countries

For this competition, projects targeting the following countries will be eligible.

<table>
<thead>
<tr>
<th>Afghanistan</th>
<th>Ghana</th>
<th>Pakistan</th>
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<tbody>
<tr>
<td>Bangladesh</td>
<td>Guinea</td>
<td>Rwanda</td>
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<td>Benin</td>
<td>Guinea-Bissau</td>
<td>Sierra Leone</td>
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<td>Burkina Faso</td>
<td>Haiti</td>
<td>Somalia</td>
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<td>Burma</td>
<td>Kenya</td>
<td>South Africa</td>
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<td>Burundi</td>
<td>Kyrgyz Republic</td>
<td>South Sudan</td>
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<td>Cambodia</td>
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<td>Central African Republic</td>
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<td>Comoros</td>
<td>Mali</td>
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<td>Congo, Democratic Republic of</td>
<td>Mozambique</td>
<td>Uganda</td>
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<td>Eritrea</td>
<td>Nepal</td>
<td>Yemen, Republic of</td>
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<td>Ethiopia</td>
<td>Niger</td>
<td>Zambia</td>
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<td>Gambia, The</td>
<td>Nigeria</td>
<td>Zimbabwe</td>
</tr>
</tbody>
</table>
## Eligible Partnerships

<table>
<thead>
<tr>
<th>Eligible options</th>
<th>UK research</th>
<th>UK business</th>
<th>Developing country research</th>
<th>Developing country business</th>
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<tbody>
<tr>
<td>Option 1</td>
<td>X</td>
<td>X</td>
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<td>Option 2</td>
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<td>Option 3</td>
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<td>Option 4</td>
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<td>Option 5</td>
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<td>Option 6</td>
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<td>Option 7</td>
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<td>Option 8</td>
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<td>The following options are not eligible</td>
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<td>Option 9</td>
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<td>Option 10</td>
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<tr>
<td>Option 11</td>
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<td>X</td>
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</tbody>
</table>
Example of DFID funded project

Developing rice resistance to two major diseases to help food security in Asia.
Example of DFID funded project

Wheat research and breeding project to **improve food security** in India and Pakistan and benefit UK wheat growers by developing new wheat varieties **using an innovative approach to hybridisation.**

**Partners**

- KWS UK Ltd
- Indian Agricultural Research Institute
- University of Sydney and Global Crop Innovations PTY Ltd
Example of DFID funded project

Partners

Russell IPM Ltd

International Partners
1. Dahal Trading Concern, Nepal
2. ACI Formulations Limited, Bangladesh
3. Elgon Kenya Ltd
4. Bytrade Tanzania Ltd
5. Bangladesh Agricultural Research Institute (BARI)
6. National Agricultural Research Centre, Pakistan
7. ICIPE, Kenya
8. Association of Mango growers Tanzania
9. CEAPRED, (NGO, Nepal)
10. EPRC, (NGO, Bangladesh)

Decreasing food waste through the control of fruit flies in Asia and Africa.

#agritech @AgriTechGov
Application Process & Assessment Criteria
Application Process

Early Stage Awards
- Single Stage
  - Assessment & Panel

Industrial Research Awards
- Expression of Interest (EOI) Stage
  - Assessment
    - Full Stage
      - Assessment & Moderation Panel

Late Stage Awards
- Single Stage
  - Assessment & Panel
Two types of application form

Expression of Interest form
• for Industrial Research Awards
• 6 marked questions with differing weightings

Single / Full stage form
• 10 marked questions each scoring a maximum of 10 points
• Use for Early & Late Stage awards
• Used for the second stage of the Industrial Research Awards
The Application is broken down into 3 marked sections:

<table>
<thead>
<tr>
<th>Gateway: Scope</th>
<th>Section One: Business Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Does the project fit the competition call?</td>
<td>• What is the business proposition / developing country agriculture challenge that the applicants are trying to address and exploit?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section Two: Project &amp; Partners Details</th>
<th>Section Three: Value Add</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What will the project entail?</td>
<td>• Is the project value for money?</td>
</tr>
<tr>
<td>• Who are the project participants and what are their credentials?</td>
<td>• Why should Innovate UK / DFID invest?</td>
</tr>
</tbody>
</table>
Please select the **challenge area** which represents the key area of innovation for your project:

- Aquaculture
- Crop: Plant Breeding and Genomics
- Crop: Soil water and nutrition management
- Crop: Weed Control
- Crop: Pest Control
- Crop: Disease Control
- Crop: Storage and management
- Crop: Engineering Solutions including Precision Ag
- Crop: Non-food applications
- Crop: Other
- Livestock: Animal Breeding and genomics
- Livestock : Nutrition
- Livestock : Health
- Livestock : Reproduction
- Livestock : Housing and management
- Livestock : Engineering Solutions Including Precision Ag
- Livestock: Other
### Section 1: The business proposition

<table>
<thead>
<tr>
<th>Question 1</th>
<th>What is the Agri-Tech challenge that your project intends to address and with what solution?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 2</td>
<td>What is innovative about your idea?</td>
</tr>
<tr>
<td>Question 3</td>
<td>Do you have freedom to operate?</td>
</tr>
<tr>
<td>Question 4</td>
<td>How do you intend to exploit the opportunity?</td>
</tr>
</tbody>
</table>

All questions are equally weighted (10 marks per question)
## Section 2: The Project details

<table>
<thead>
<tr>
<th>Question 5</th>
<th>What is the underpinning scientific evidence?</th>
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</thead>
<tbody>
<tr>
<td>Question 6</td>
<td>What technical approach will be adopted and how will the project be managed?</td>
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<tr>
<td>Question 7</td>
<td>What are the risks (technical, commercial and environmental) to project success? What is the project’s risk management strategy?</td>
</tr>
<tr>
<td>Question 8</td>
<td>Does your team have the right skills and experience and access to facilities to deliver the project and exploit it?</td>
</tr>
</tbody>
</table>

All questions are equally weighted (10 marks per question)
### Section 3: Funding and added value

<table>
<thead>
<tr>
<th>Question 9</th>
<th>What are the resources required to deliver the project and their cost?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 10</td>
<td>How does the financial support from the Agri-Tech Catalyst add value?</td>
</tr>
</tbody>
</table>

All questions are equally weighted (10 marks per question)
Eligibility criteria & funding to overseas partners

• projects must target an international development challenge
• projects must be collaborative and include an eligible developing country partner
• all funding will be sent through UK based organisations and institutions (Hub and Spoke funding model to overseas partners)
• Early stage awards can be business or research-base led
• Industrial Research and Late stage awards MUST be business-led
• Late Stage awards can only include research-base partners as a sub-contractor
Industrial Research Awards update:

Applications must be business-led

- applications can include UK research-base and overseas business partners but these must be business-led
- this is to make sure that relevant developing country agriculture challenges are prioritised
- in such situations, we will support applications with suitable UK research-base partners undertaking the project management lead role.
- UK research-base partners must justify this by providing evidence of demand for their expertise from the developing country business partner(s)
- they should also outline how the project management expertise will continue to provide benefits beyond the project duration
What is collaboration?
In all collaborative projects there must be:

• **at least two collaborators**

• a **business-led** consortium (except for Early Stage FS), which may involve both business and the research base and

• evidence of **effective collaboration** (see guidance)
  
  - *Typically this would mean that no one partner would be taking more than 70% of the eligible costs, and we would expect to see the structure and rationale of the collaboration described in the application.*
Minimum grant  (business partner)

If partner wishes to collaborate but does not wish to claim a grant:

• role and work should be in application as for all other partners

• partner name and total costs (contribution to the project) must be included in the finance summary table.
  – Enter zero grant requested in finance summary table

• no partner finance form required

• not be named in the offer letter if your project is successful
## Finance Summary Table

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>4</th>
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<th>6</th>
<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Organisation name</td>
<td>Company registration number</td>
<td>Enterprise category</td>
<td>Postcode</td>
<td>Contribution to project by each organisation (£)</td>
<td>Funding sought from Technology Strategy Board (£)</td>
<td>Other funding from public sector bodies (£)</td>
<td>Total (£)</td>
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<tr>
<td>1</td>
<td>Lead org.</td>
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</tbody>
</table>

### Project cost summary
(for each project participant)
1. Organisation name
2. Organisation registration number
3. Enterprise category
4. Postcode
5. Contribution to project by each organisation
6. Funding sought from the Technology Strategy Board
7. Other funding from public sector bodies
8. Total
Application Assessment

All applications are assessed by independent reviewers drawn from industry and academia.

What do they look for?

- **Clear and concise answers**
- **The right amount of information** – don’t give too much detail or make assumptions
- **Quantification** and **justification**
- That **you’re the right people** with the **right bright idea** and the **means to exploit** its potential

“*I think you should be more explicit here in step two.*”
The Collaboration Agreement

Preparation

Negotiating a Collaboration Agreement can be complex and time consuming

Applicants should therefore start work on this at an early stage in the process, ideally before submitting their full applications.
Key Dates

• Competition opened 11 July 2016
• Briefing events for potential applicants 1 August 2016 (webinar)
• Consortia building event 14 September 2016
• Registration deadlines:
  – EOI stage (industrial research awards only) - noon on 26 Oct 2016
  – full stage (early and late-stage awards) - noon on 25 Jan 2017
• Application deadlines:
  – EOI stage (industrial research awards only) - noon on 2 Nov 2016
  – full stage (all award categories) - noon on 1 Feb 2017
Further information

To find out more about the Agri-Tech Catalyst, including the competition brief and *Guidance for Applicants* documents available at:

Where to go for further help...

Knowledge Transfer Network

David Telford:
tel: 07912 580613
eemail: david.telford@ktn-uk.org

Callum Harvey:
tel: 07875225715
eemail: callum.harvey@ktn-uk.org

Liliya Serazetdinova:
tel: 07974 171845
eemail: liliya.serazetdinova@ktn-uk.org

Chris Danks:
tel: 07583 022666
eemail: chris.danks@ktn-uk.org
Thank you